



WWF

the

Newsletter of the World Wide Fund for Nature – India

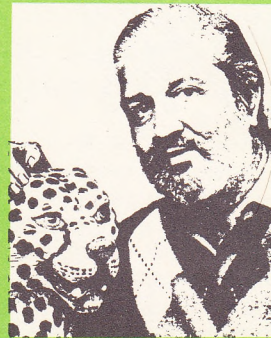
WWF-INDIA

Quarterly

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Comment

WWF-INDIA has received kind messages from all over the country and abroad condoling the sudden passing away of our President, Lt. Col. Dr. Fatesinghrao P. Gaekwad of Baroda. Among them was a thought provoking and challenging one from a prominent conservationist-editor-film maker of Bombay. He mentioned a recent conversation that he had had with our President.

"One recurring theme of his (the President's) was that conservationists should learn to work together so that their voice carried more clout. He was also quite hopeful that if a reasoned representation was made to the Prime Minister, Rajiv Gandhi, then some progress could be made vis-a-vis the reappraisal of the various hydro-projects being planned in India.

Dr. Salim Ali too lamented the fact that egos came in the way of conservationists working together. I feel motivated to put this down because one by one the great moving spirits of India's conservation movement are departing and WWF-India therefore has an urgent, vital role to play in the destiny of this subcontinent. More than ever before you must now assume the responsibility of knitting like minded persons together. There need be no merging of identities, but you could help people to come together on issues. WWF-India is the largest, most public organisation of its kind in India. Your potential is staggering. Today the man on the street is still unaware of the devastating connection between environmental degradation and human misery. You must very quickly prepare an imaginative action plan to remedy this situation. You must also work towards creating a climate, two elections from now, for the establishment of the largest non-political vote bank in India—conservationists."

WWF-INDIA accepts these sentiments in a spirit of humility and determination. Working in partnership with our sister conservation groups, our subscribers and other supporters, we will strive to fulfil the vision of our late President.

Thomas Mathew



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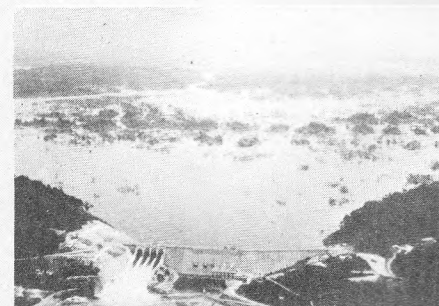
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The views expressed by the authors are their own and do not necessarily represent those of WWF-India

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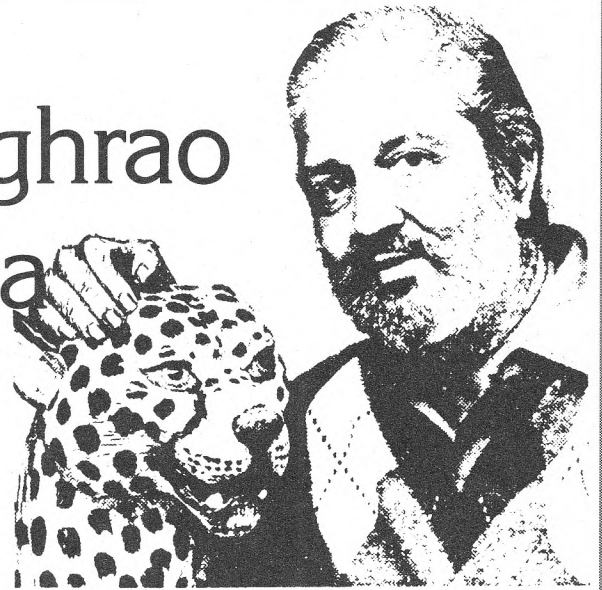
Cover Photo



Does the drowning of a forest really sustain Man?

FAREWELL

Lt. Col. Dr. Fatesinghrao Gaekwad of Baroda



Lt. Col. Dr. Fatesinghrao P. Gaekwad (Former Maharaja of Baroda) passed away on 1st September 1988 after a brief illness.

Born as a crown prince of the erstwhile state of Baroda Dr. Fatesinghrao Gaekwad was educated privately by carefully selected tutors and brought up to rule as a Maharaja in the well known Gaekwad tradition. Unfortunately, circumstances denied him the pleasure to serve his people. Unruffled by this, he used his time, money, energy, talents and skills to dedicate himself to the larger cause of humanity. In the process, his personality crossed not only the borders of his erstwhile State, but also transcended the national boundaries.

In recognition of his outstanding contribution to conservation his name has been added to the WWF International Scroll of Honour.

In the multi faceted life which he led on the international scene, perhaps his greatest contribution was his dedication to the cause of Conservation. At the request of Prince Bernhard of The Netherlands, Founder President of the World Wildlife International, he established the Indian Chapter of the World Wildlife Fund in 1969. As its President right from its inception, he worked zealously and this Institution has grown all over the country and created a much needed national awareness for the existence of the flora and fauna and its preservation.

Dr. Gaekwad was a trustee of the WWF-International for 6 years and also held important offices in a number of conservation related organisations, such as the Indian Board for Wildlife (IBWL), International Union for Conservation of Nature and Natural Resources (IUCN), World Council for the Biosphere, Royal Society for the Preservation of Birds, the International Crane Foundation, The World Pheasant Association, Otter Trust and the Snow Leopard Trust. He was a Correspondent Member on the SSC/IUCN Specialist Group.

After the return from a two month hunting/photographic safari of Kenya, Uganda, Tanzania, Zaire (then Belgian Congo), in 1955, Dr. Gaekwad realised the futility and absurdity of killing for pleasure and he laid down the rifle and picked up the camera. The immediate result of this change of heart was the setting up of the Maharaja Fatesingh Zoo in the sprawling compound of his Laxmi Vilas Palace in Baroda. This zoo is now run by the Maharaja Fatesingh Zoo Trust and is open to the public. The first occupants of this zoo were a selection of African animals and birds. Indian additions began with his rescuing a pair each of leopards and Himalayan black bear cubs and both these pairs were hand reared by him to adulthood. His main species for research have been crocodilians and Indian star-tortoises. He bred different species of tortoises in the gardens of his spacious penthouse office in Bombay. He was closely connected with the setting up of the prestigious Delhi Zoological Gardens.

Lt. Col. Fatesinghrao Gaekwad was the Chairman of The Baroda Rayon Corporation Limited which he founded in 1956. He was also Chairman and Director of many other private and public limited companies.

Lt. Col. Fatesinghrao Gaekwad was the Chancellor of the Maharaja Sayajirao University of Baroda since 1951. Perhaps it is a record that any individual has held such a high position for a continuous period of 37 years. He was well conversant with many foreign and Indian languages. He was a well-known orator and could give fluent speeches extempore in English, Urdu, Marathi, Gujarathi, Hindi and even Sanskrit. When his first book entitled "Palaces of India" was published in 1980, it was an instant success both in India and abroad. He was also well-known in the field of art and his private Museum in Baroda houses priceless treasures of art collected by his family over many generations.

Maharaja Saheb, as he was lovingly called, was very widely known for his love of sports, particularly cricket and tennis. He played a great deal of first class cricket in India and was Manager of the 1959 Indian Cricket Team that toured the U.K. — youngest in International Cricket History. When decided that cricketing relations between India and Pakistan were to be revived in 1978 after nearly 17 years, he was unanimously elected to manage the Indian team. He was most successful in this job as it was more a diplomatic mission. He became extremely popular in Pakistan right from the then President Zia-ul-Haq to the common man on the street. He was an able cricket administrator and his advice was sought on many issues. He wrote on cricket regularly in various magazines. He was a prominent T.V. personality and a recognised sports broadcaster. He acted as summariser for the BBC and appeared on T.V. in the U.S.A., Canada, Australia, Malta and several other countries.

Lt. Col. Fatesinghrao Gaekwad entered politics in 1956 by joining the ruling Congress Party led by Pandit Jawaharlal Nehru. Elected to the Lok Sabha in the second general elections in 1957, he was invited to join the Central Cabinet as Parliamentary Secretary for Defence, which post he held until 1962. Re-elected to Parliament in 1962, he worked as a Member of the Public Accounts Committee and the Executive Committee of the Congress Party in Parliament. In 1967, he chose to enter State politics and on his election, joined the State Cabinet as Minister for Health and Family Planning, Fisheries, Jails and Sports. He resigned in 1971 and got re-elected in Parliament in 1977 as an Independent. He was a Member of the Consultative Committee of the Ministry of Education and Social Welfare.

His demise closes a very significant chapter in the conservation movement in this country.

THE LENGTHENING SHADOW OF DOOM



Reflections on Water Management

M. N. BUCH
Member, M.P. State Committee, WWF-India

The year 1987 had, in many ways, been a far from happy one for India. Leaving aside questions of whether our political and diplomatic initiatives in the Punjab, the North-east and Sri Lanka have worked or not, on the climatic front there have been severe problems because of an erratic, delayed and eccentrically distributed monsoon. The Prime Minister was on record about it being the most unprecedented drought of the century. The perceived scarcity which naturally followed drought had led to not only the opening of massive relief works but virtual competition between States for more central funds for drought relief. Whilst the rains definitely failed in Saurashtra, north Gujarat, western Rajasthan and the plains of north India, the failure of the monsoon had not been as total or as widespread as was originally believed. The north-Indian States were fairly well placed in the matter of snow-fed irrigation. One of the issues which should cause concern is that because everyone was shouting "drought", there was a tendency for scarce resources to be spread thinly instead of being concentrated in the areas of maximum need. I shall elaborate on this point a little later.

One of the fall-outs of the drought was that the voice of Gujarat in demanding clearance of dams on the Narmada was strengthened and with some hesitation two major projects, Sardar Sarovar and Narmada Sagar, have been cleared. The considerations behind such clearance have been that with the damming of the Narmada adequate water would be available to Gujarat for a permanent eradication of drought and, simultaneously, power generation would facilitate further industrialisation. The environmental considerations which had held up the projects were brushed aside, with brave statements being made that deforested areas would be restored to vegetation. The fact that in reality less than one per cent of the waste lands stated to be available for afforestation were actually under State control and available for this work had been conveniently forgotten. What appeared to be a permanent solution to drought would actually be a forerunner of the ultimate doom, if not of Gujarat then certainly of much of western Madhya Pradesh.

I was recently in Saurashtra for a very short visit. This was the home of my ancestors as the fertile Punjab was where I grew up. Saurashtra is true

Savannah, or tropical grass lands. The Saurashtra plains had plenty of grass, interspersed with the thorn trees of a somewhat arid savannah. So similar is it to the South African *Veldt* that it is no wonder that the Gir is the only remaining habitat of the Asiatic lion. These rolling grasslands had always sustained both fine cattle and excellent wildlife, with deer and antelope predominating.

The water regime had an equilibrium in which vegetation moderated run-off and ground-water recharge maintained a water balance. Unlike Kutch and north Gujarat, where ground water is brackish, it is the moderating influence of grass and thorn that kept the Saurashtra water sweet. If the marvellous juggling tricks that nature plays with various elements in order to keep the earth healthy were to be witnessed in live form, Saurashtra *was* the place.

I emphasise the word 'was' because today Saurashtra is a living (or dying) example of what man can do to his own environment. Over-grazing and conversion of pastures to tillage, deforestation of plains and hills and a total mismanagement of water resources has converted

this once fertile land into a desert. It had not rained for a fourth year in succession, though a few areas received scanty rainfall. But this does not explain the parched prosopis, acacia and even cactus on the road from Bagodra to Rajkot, nor the totally barren hills and the ever expanding salt flats of the *Khar Patti* of the *Bhal*. It is man who first denuded the land, by senseless felling, with his axe and by letting loose herds of sheep, goats, cows, buffaloes and camels on ranges that had quite passed their regeneration thresholds. The little rain that fell flowed rapidly into the sea. The search for ground water led to more and more wells, tube-wells and pumps and the water table had been driven ever downwards. The sea, a predator kept at bay by the column of fresh water, invaded the porous calcine rocks and there is only brackish water where any is available at all. No vegetation can survive the sucking out of all ground moisture by man and machine and as such has just died, right down to cactus and thorn. If Saurashtra is still not the Rann of Kutch, it is not far from it and a few more years of poor rains will complete the process of desertification.

This is the real face of drought.

If we have money for drought relief it is Saurashtra and western Rajasthan (where even camels died) which needed *all* of it, even if U.P. and M.P. had to thereby depend on their own resources. It is not massive injection of irrigation which is called for. The Rajasthan canal for Jodhpur and Narmada for Kutch and Saurashtra is the peg on which Rajasthan and Gujarat have hung their hats. These engineering solutions will bring short term relief, but will they not create another Hissar in Jodhpur, another Tawa in Kutch? What is needed is a husbanding of the resources of nature. Livestock have to be called, if need be by exchanging one good cow for five to ten 'worthless' bovines or browsers. **Free range grazing must be totally stopped**, by persuasion, providing feed through stall-feeding measures and by strict law enforcement if need be. A raped earth needs time to recoup its strength, which means that cattle must keep off! Those lands best suited for pastures must be recovered from the plough, with the owners being compensated and encouraged to grow grass instead of cereals. If industries can be subsidised in the matter of location, why cannot the cultivators be subsidised in the choice of crops? Small and repetitive works of water conservation should be taken up so that even scanty rainfall can penetrate the earth. It is these unspectacular though painstaking, measures which, over the years, will restore the

savannah characteristics of Saurashtra. Then alone will the land smile again, with 'relief' of the right sort.

But Saurashtra is much more than an example of drought at its worst. It is a vision in the crystal ball of what large parts of M.P. will become in the

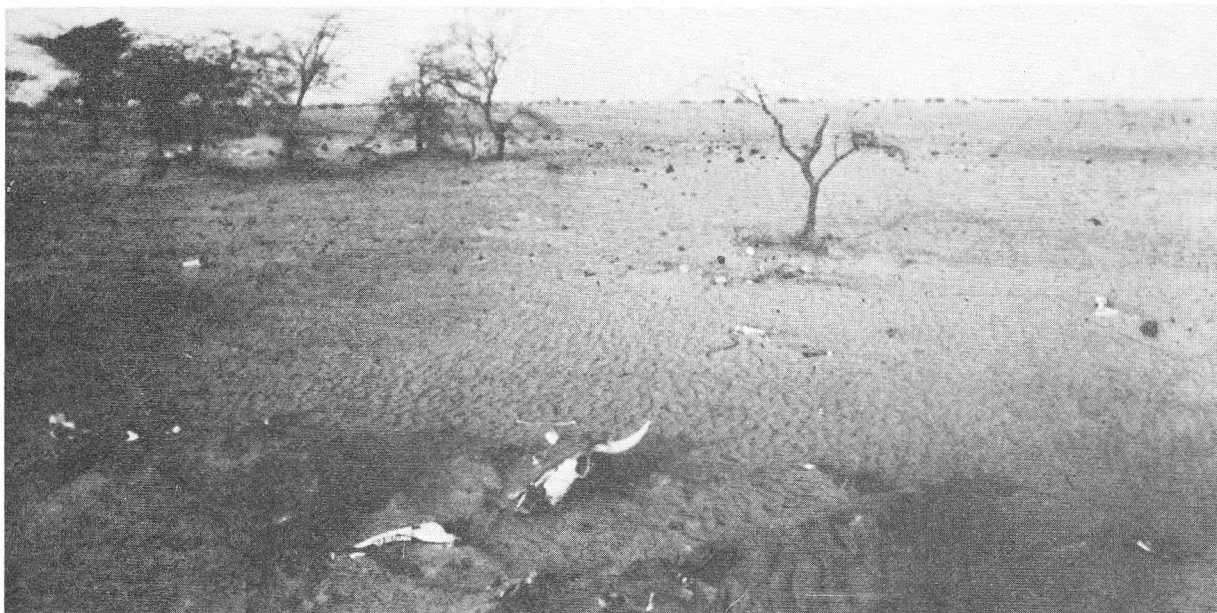
increased biotic pressure. The magnificent grasses and shrubs which underlie them will also go, exposing schist, gneiss, barakar, basalt and dike to the sky. The metamorphic rocks of the Satpuras, once denuded, will be barren till the end of time, for on them nothing would grow. Khargone, Khandwa, Dhar, Jhabua, parts



Lack of water management

next twenty-five years. The Narmada and Tapi are rivers of the forests, which nurture forests and are nurtured by them in turn. The face of Narmada is fated to change, with colossal dams and wide-spread deforestation in order to accommodate them. Fifty-five thousand hectares of forests, about five crore trees, will be clear-felled. They sustain a population of about two lakh people and about eight lakh cattle. These

of Ratlam, Mandsaur, Indore and Hoshangabad districts and all of Betul will be converted into another Saurashtra. The crystal ball is quite hazy and clouded about whether or not a harnessed Narmada will benefit Gujarat, but on the future of western Madhya Pradesh it is quite clear. This land of plenty, of wheat, jowar, makka, pulses, oil seeds, cotton, sugar cane and fruit orchards will soon become a desert.



Another side of the same coin

will then move to the remaining forests of the mid-reaches of the Narmada and of the Tapi Valley.

At least another lakh and half hectares of forests, and about 15 crore trees, will succumb to

If Saurashtra is one face of drought, Western Madhya Pradesh is destined to be its second, more horrendous, face.

Do our rulers see it so?

HISTORY OF NEGLECT AND APATHY

Tasks in Land Management

B. B. VOHRA

Chairman, Advisory Board on Energy, Govt. of India

It cannot be denied that it is the colossal mismanagement of India's land resources which is mainly responsible for the country's abysmal poverty. Of the 264 mh of the land which possess any potential for biotic production, as many as 175 mh were reported to be degraded to a greater or lesser degree in 1980. And of the 175 mh, at least 90 mh are so degraded as to be almost completely unproductive. Denudation and soil erosion affect around 153 mh out of the 175, while water-logging, salinisation and other ills account for the remaining 22 mh. If the country is to be saved from recurring and increasingly severe floods and droughts as well as from the growing depletion of the productive capacity of its land resources, the stupendous soil and run-off losses it suffers must be arrested by massive programmes aimed at the natural regeneration of its non-agricultural lands by protecting them against unrestricted grazing. Soil and water conservation works must also be undertaken on all eroding lands irrespective of whether these are under agricultural or other uses. Such programmes must indeed become the focal point of all efforts at rural development and be carried out with the active collaboration of local communities in the shortest possible time.

The amelioration of waterlogged and saline lands, the stepping up of command area development programmes designed to improve the inexcusably low productivity levels of some 20 mh of canal irrigated lands, the closing of the gap of around 6 mh between the potential "created" by big irrigation projects and the potential actually "utilised", the protection of good agricultural lands against diversion to urban uses, the maintenance of the fertility of over-worked agricultural soils and the vigorous conservation of whatever natural forests are still left to us must also figure prominently in a comprehensive programme of land management. Unless such a programme is formulated and implemented as a matter of the highest priority, the very survival of the country as a self-respecting nation will be threatened.

Thanks to a pervasive "resource illiteracy" there is as yet little appreciation of these matters. As a result there is—41 years after independence—still no considered policy for better land management,

no suitable financial allocations for this purpose, and naturally enough, no organisational arrangements for achieving it. This is a situation fraught with the most dangerous consequences and must give cause for the utmost concern among all those who are interested in the country's future.

The re-ordering of priorities in this field is, however, not going to be an easy matter, considering that all efforts in this direction in the past have proved to be unsuccessful.

It was as far back as September 1972 that pointed attention was first drawn to the vital importance of the proper management of the country's land resources in an exhaustive paper entitled "A Charter for the Land", which was subsequently published in "The Economic and Political Weekly" of March 31, 1973. This paper described the ills that our land resources suffer from and suggested how these should be treated. It stressed the need—which still remains unmet—for creating a more reliable data base for all matters concerning our land resources and for bringing about a greater awareness among the people regarding the importance of better land management. It also pleaded that appropriate mechanisms and organisations should be created at the Central, State, District and local levels for monitoring and maintaining the health of our limited and irreplaceable soil resources. As it happened, this paper came to the notice of Mrs. Indira Gandhi, and she reacted very positively to it, particularly to perhaps the most important and far-reaching of its recommendations namely, that there should be an authority at the Centre to act as a focal point for all matters relating to the assessment and management of our land resources. Mrs. Gandhi considered this matter to be so urgent that she asked her Minister of Planning to examine within a period of two months as to how the proposed Commission should be set up. The views that she expressed on this subject are worth quoting as they are as relevant today as the day on which they were written nearly 15 years ago:

"Based on our experience of soil erosion, droughts and floods and their increasing financial liability, a large part of which has to be

borne by the Centre, this paper argues in favour of the creation of a Central Land Use Commission. I am in broad sympathy with its approach and feel that we can no longer afford to neglect our most important natural resource. This is not simply an environmental problem but one which is basic to the future of our country. The stark question before us is whether our soil will be productive enough to sustain a population of one billion by the end of this century. . . . We must have long term plans to meet this contingency".

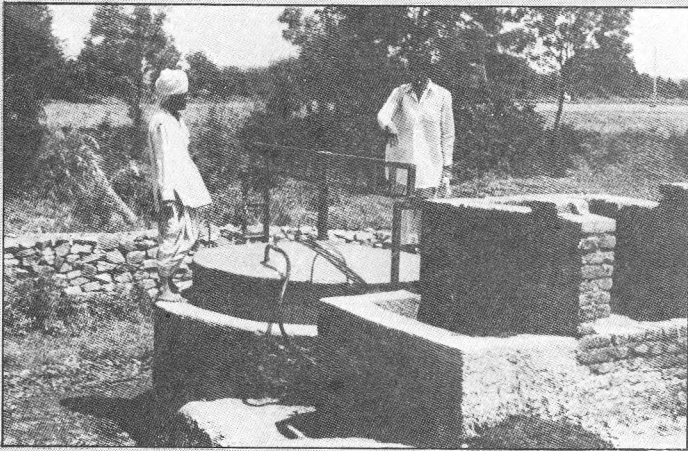
Events however proved that these ideas were very much ahead of their time and encountered great resistance at various policy-making levels. Ultimately little emerged from Mrs. Gandhi's initiative except a directive to State Governments that they should set up State Land Use Boards under the chairmanship of Chief Ministers. But this was an insignificant gain because in the absence of an apex body at the Centre to provide the requisite leadership and financial backing to a meaningful programme of land management, these Boards have remained largely on paper.

The N. D. Tiwari Committee on the Environment (1980) also considered questions relating to land management and came to the conclusion that in order to deal with the massive problems of land degradation faced by the country, it was necessary that a Central Land Commission should be set up to serve as "a policy-planning, coordinating, and monitoring agency" for all issues concerning the health and scientific management of our land resources, and should function as part of the proposed Department of Environment. However, even this recommendation failed to find acceptance.

Again, the 6th Plan document of 1980 contains, in its chapter on the environment a most lucid account of the nature and consequences of land degradation and minces no words in describing this threat to the economy.

"The losses which the country is bearing on account of the continued degradation of its land resources are of staggering dimensions and constitute one of the most important threats to our economic progress".

"The country can hope to achieve a continuous improvement in agricultural productivity only if the problems of land degradation are tackled with the utmost vigour. Such an effort though gigantic



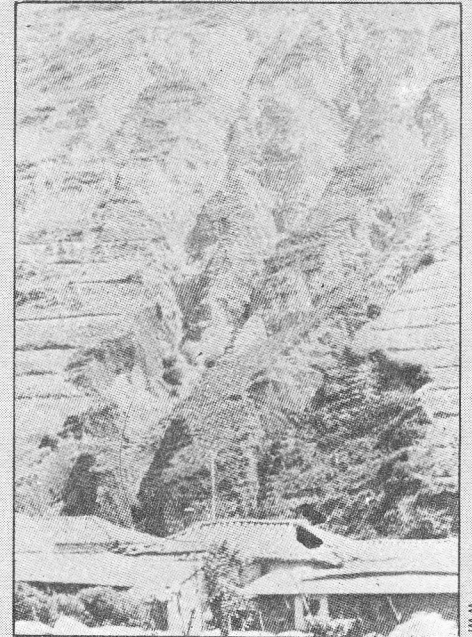
Maximum utility of cowdung is achieved by the use of a biogas plant.

by any standards is, however, inescapable if the country's agricultural future is to be assured. Considering that even after all possible steps are initiated immediately, it will be years before results begin to show and that further massive damage will unavoidably continue during this period, there is absolutely no room for complacency on this front".

However, these fine sentiments were not matched by any significant allocations for better land management, and were thus only in the nature of lip service to the cause.

One would have expected that the 7th Plan would take up the thread from where it had been left by the 6th Plan but surprisingly the 7th Plan document does not contain even a proper write-up about the problems of land management, let alone any enhanced allocations for tackling them. It is almost as if the problems which loomed so large in 1973 and 1980 had somehow disappeared by 1985 and as if the persons who had perceived them had suffered from hallucinations.

The story, however, is not yet quite complete. The present Prime Minister warned the country, in his address to the nation on 5th January, 1985, of the serious ecological and socio-economic crisis which it was facing. He quickly followed up his broadcast by



Loss of valuable topsoil due to excessive tree felling.

constituting three new bodies—the National Wasteland Development Board, the National Land Use and Conservation Board and an apex body called the National Wasteland and Land Use Council which has all Chief Ministers as its members and over which the Prime Minister himself presides. While the NWDB was charged with the responsibility of mounting a massive afforestation programme with the help of the people, the National Land Use and Conservation Board was expected to formulate a national policy and a perspective plan for the conservation, development and management of the land resources of the country.

Even these important initiatives have however not yielded the intended results, basically because of the continued ignorance and apathy which the problems of land management are still viewed by the Country's establishment. While the NWDB has pursued a one-point programme of creating plantations and made some gains in this limited field, the NLUCB has more or less remained a paper body and has not held a meeting for nearly two years.

In this rather bleak scenario, it would be unrealistic to expect that things will suddenly take a turn for the better and that optimum land management will become the focal point for all rural and agricultural development in our future plans, as it very well deserves to be. It seems that we will continue to have the droughts and floods, the declining productivity of our lands, the endemic shortages of food, fuel, fodder and timber from which we suffer and the continuing destitution of our people. Perhaps the cup of our misery is not yet full and things have to become still worse before they begin to get any better.

In such a setting, it is incumbent on those who can read the writing on the wall not to give way to despair but to continue to fight for the cause. They must, in particular, do whatever they can to dispel "resource illiteracy" and to create, with the help of enlightened sections of the media, a body of public opinion which will be strong enough to generate the political will necessary for the re-ordering of the priorities that have brought the country to the present pass.

The views expressed in this paper are not necessarily those of the organisations with which the author is associated

WWF-INDIA JOINS IN ASSERTION OF COLLECTIVE WILL

Crusade against the Colossi

NANDU ANDHARE

Divisional Organiser, WWF-I, Nagpur

More than eighty persons, comprising renowned social activists, scientists, journalists, and eminent environmentalists gathered at a place of happiness, peace and productive human endeavour aptly known as "Anandwan", at the invitation of famed humanist Baba Amte. The group met, discussed and launched a crusade against large dams which lead to large scale displacement of tribals and other underprivileged segments of society, with disastrous effects on the country's natural resources and on its ancient cultural heritage, and that largely benefited a minority of our people.

Welcoming the delegates, Baba Amte said that "we have assembled here to awaken to our social and environmental responsibility. We have assembled here to fulfil a national obligation, to assert our collective will against these big dams. The challenge is immediate and urgent". He asked the environmental pilgrims gathered there to use him and his frail body completely in this work. "Though tongues and tribes may differ, in brotherhood we stand" said Baba Amte,

quoting from a Nigerian song.

Amongst the eighty participants present were Thomas Mathew, of the World Wide Fund for Nature-India, Sundarlal Bahuguna, Chipko leader, Anil Agarwal of the Centre for Science and Environment, Smitu Kothari of 'Lokayan', journalist Darryl D'Monte, Bittu Sahgal, writer and film maker, activists Ramesh Billorey of the Campaign Against Narmada Sagar, Medha Patkar of Narmada Dharangrast Samiti, Dr. Kamla Choudhry, former Chairman of the National Wastelands Development Board, Advocate R. Venkataramani, a practising lawyer of the Supreme Court, N. D. Jayal from INTACH, Walter Fernandes of the Indian Social Institute and a number of other prominent activists, journalists and scientists including H. K. Divekar and Bharat Buhshan of the Bombay Natural History Society.

The meeting prepared an action plan to oppose large dam projects and also put out a statement of shared concern which is reproduced below.

The Declaration

We are opposed to big dams. We consider them symbols of destruction in the name of development. They delude people by promising benefits which do not accrue to them. The reliance on big dams is symptomatic of the unthinking acceptance of the dominant models of economic growth.

There are over 1500 big dams in the country, none of which has lived upto its expectations

- Instead of all-round prosperity, they have benefited a small number of rich farmers and the urban elite.
- Instead of making the country drought-proof, they have made it drought-prone, mainly through ecologically inappropriate water-intensive farming system.
- Instead of preventing floods, they have in many instances made areas more flood-prone.

- Instead of improving standards of living in rural areas, they have displaced and impoverished millions of people.

By relying on big dams, the planners have destroyed the ways of life of Adivasi communities and hill people, and alienated them from the rest of India. This has polarised society and endangered the nation's integrity.

Big dams have led to the wholesale destruction of natural resources, particularly forests, along with their diverse flora and fauna. Often in contravention of the Forest Conservation Act, official agencies start felling trees before a project receives clearance.

Big dams have destroyed the ecology of riverine systems, depriving thousands of farmers and fishermen in downstream areas of their livelihoods. They have led to extensive waterlogging and salinisation, turning millions of hectares infertile. In several cases, they have increased the risk of

earthquakes.

Big dams, especially those located in strategic zones, pose risks to national security. Justified in the name of national interest, they are diametrically opposed to it.

Despite widespread criticisms of big dams, projects have been cleared without completing studies by the official agencies themselves [as in Sardar Sarovar and Indira Sagar] or without heeding to the findings of committees appointed by the Government [as in Tehri]. The Government has also ridden roughshod over all local opposition, specially from Adivasis [as in Suvamarekha, Bihar].

Under traditional systems of water management, control over natural resources essential to life was in the hands of the community. Through big dams, this control, passes to a centralised bureaucracy. Big dams are, at best, a temporary solution to the water crisis facing India today.

We are also against big dams because they corrupt the people and the officials and mortgage the nation. The cash compensation paid to outstees can never be a substitute for their hereditary means of livelihood. Till today, outstees have not been accorded justice as in Bhakra Nangal, Rihand and Koyna.

Officials, engineers and contractors have been lobbying for big dams because it allows them to perpetuate their reign of corruption. The undue reliance on foreign aid and investment for big dams has indebted the country for years to come.

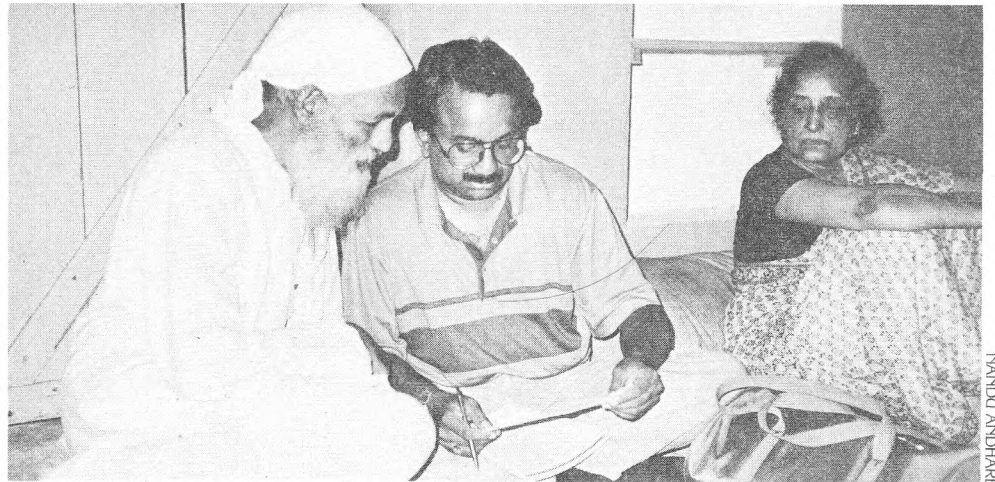
We are distressed by the fact that:

- City Dwellers are ignorant and indifferent regarding the devastation caused by big dams.
- The culture of consumerism promoted by vested industrial and agricultural interests is blinding us to the realities of this crisis.
- Most of the professionals [economists & engineers included], fail to see how the present model of development takes a toll of the environment.
- Most of the bureaucrats turn a deaf ear to the pleas of sanity raised by environmentalists.
- Most of the politicians look only to short-term gains and ignore the larger havoc caused by big dams.

We call for a moratorium on big dams. All projects on which construction has not begun should be scrapped. All work should be suspended on projects where it has already started, and a fresh holistic appraisal should be made by an independent body with representatives of peoples' organizations. Cost-benefit analysis, including comprehensive social and ecological impacts, should be conducted afresh on projects already completed. Where people have been displaced,

water where it falls, and by small bunds and reservoirs. This also calls for different agricultural and energy systems, like small hydro-electric schemes.

Ultimately, the entire planning process has to be reversed, whereby each village becomes a unit, and decisions regarding its development are made by the people, taking the resources provided by the specific ecosystem into account. The watershed has to be the next unit of planning,



Secretary General WWF-I discussing the draft of the resolution with Sunderlal Bahuguna, eminent environmental activist, with Dr. Kamala Chowdhury looking on.

where once again the entire planning process must be in the hands of the people. Development and protection of environment will then proceed hand in hand, and industrialisation will grow in response to peoples' demands.

The people have a right to know everything about a project which affects them. They should have access to documents now denied to them under the pretext of confidentiality. The people should also have a right to participate in the decision-making process at every stage.

There has also to be a more equitable distribution of vital natural resources like water and energy between and within urban and rural populations. A society is ultimately judged by the manner in which it treats its most vulnerable citizens. The present inequitable distribution leads not only to the impoverishment of villagers but also contaminates the environment.

The cropping pattern encouraged by big dams, as seen in the Green Revolution, is not sustainable.

The present pattern of land use has helped only the rich farmers while marginalising the poor.

Compensatory afforestation can never provide a substitute for a natural forest.

Can we remain silent spectators to this destruction? No, we will not let time pass us by. We must decide today to join the struggle against big dams which are making the tribals and hill people the victims of a wider conspiracy.

We will attempt to awaken all sections of the society including those who are supposed to be the beneficiaries of so called development.

Towards this task let us start spanning out in villages and cities all over the country in every form available to us. Let us involve hundreds and thousands of the poor and the rich, cultivators and labourers, entrepreneurs and crafts people, a massive cadre committed to this cause.

But even this may not be enough to halt and reverse the juggernaut of "development". This may not stop the pillage of the wealth of generations by a handful of elites and therefore let us go to each and every dam site. We will join such struggles as those at Koelkaro, Tehri and Pooyankutty, through exhibitions, demonstrations, dharmas and such actions. Let us gather in large number at each dam site, and with our gradually increasing strength, let us halt them.

Very soon, on one such dam site, we will demonstrate the collective strength of our campaign and lay the foundation of a nationwide movement against big dams.

Come, let us commit not only our voices but our lives to this struggle.



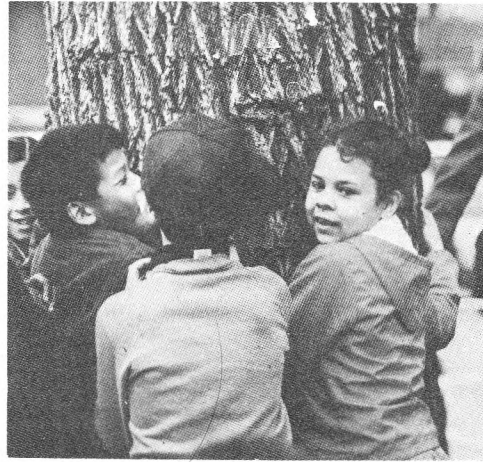
Baba Amte addressing and inspiring the gathering.

they must be comprehensively rehabilitated. Under no circumstances can people be denied the right to life and livelihood.

There are alternatives to big dams. In most of the instances, peoples' needs can be met by trapping

There has to be some control over the consumption of natural resources like forests and water to enable these to be used on a sustainable basis. At the present rates of exploitation, we are robbing future generations of their inheritance and survival.

Chipko in New York



Union Square Park in New York City presented an unusual sight on April 29 this year. First a group of schoolchildren hugged a tree (top). Then a number of adults among them (right, from left to right), Indian Consul General Alan Nazareth, New York Environmental Conservation Director Carol Ash and New York City Parks Commissioner, Henry Stern massed themselves protectively around the tree. The occasion was the celebration of Chipko Day in honor of the Chipko movement's leadership, Sunderlal Bahuguna of India. This gentle, unassuming hillman's crusade to save the forests and greenery he has lived amongst in Uttar Pradesh has snowballed into an internationally renowned and emulated movement.

The Chipko phenomenon of Bahuguna fame in the Uttarakhand Hills had organized local village women to protest against deforestation by embracing or encircling each endangered tree when the woodcutters arrived. The word 'chipko' (to stick to, to hug) has since entered the dictionary of environmentalists around the world.



There was also a recital of Indian music at the park (left) with Daisy Paradis on the sitar and Paul Leake on the tabla.

According to *India-Abroad*, published in New York, Ivy Morrison of the New York Parks Department read about Bahuguna in an American magazine and came up with the idea of Chipko Day. Mayor Edward Koch proclaimed April 29 as Chipko Day in New York. A highlight of the celebrations was the planting of a chinara sapling—one of three sent by Prime Minister Rajiv Gandhi—near Mahatma Gandhi's statue in Union Square Park.

Courtesy: SPAN Magazine
Photos: Abhijit Mitra

Tamil Nadu

MADRAS

Environmental education through puppetry

Puppetry is an art form, which besides providing entertainment can also convey meaningful messages. This medium was used for this summer's Environment Education workshop. The objective of the workshop was to create an awareness among children about our environment and the various ecosystems. About 150 students participated from April 20 to May 31st 1988. The workshop was jointly conducted by Ms R. Bhanumathi, Education Officer WWF-I Tamil Nadu State Office and the C.P. Art Centre, Madras.

The various concepts covered during the workshop were (1) Food chain in an eco-system (2) Role of forests and trees (3) Relationships between plants, animals and man (4) Importance of water to man (5) The various forms of pollution (6) Need for conservation and preservation and (7) Resource cycling. These concepts were used as the basic themes for the preparation of the various puppets.

Children in the age group of 8-9 years were taught to create simple finger puppets depicting animal heads, birds etc. and also to produce the sounds made by these creatures. The things that they enjoyed learning to do were leaf printing, spray painting on leaves, making collages with leaves and flowers and making masks.



Participants at the puppetry workshop.

The older age group of 10-15 years were taught to make different types of puppets based on various environmental concepts. They were taught how to make simple finger, stick and glove puppets. The role of resource recycling was introduced and the students were shown how to make simple hand puppets from used articles like old greeting cards, pieces of cloth, newspaper, old

paper bags, used envelopes, shoe boxes and other items found in any household. Certain other concepts on the environment and nature were elucidated in the form of a slide and film show. Illustrated talks on 'The vanishing forests,' 'India's wildlife,' 'The need to conserve nature' and 'Snakes' were also given. This age group was also taught script writing, presentation and puppet manipulation besides making the puppets.

On the last day of the workshop students exhibited their craft and puppets. Puppets of various types, based on different themes and concepts were exhibited by the students of each group. A puppet show on 'Dinosaurs' conceived and prepared by WWF-India (TNSO) was also shown.

Gujarat

VALSAD

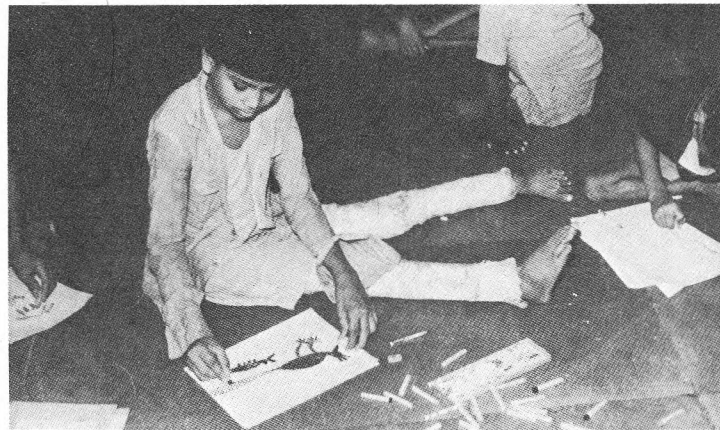
On June 5th, World Environment Day, WWF-I Valsad Division organised an exhibition, slide show and an 'on the spot' drawing competition. This programme was designed by Dr. Shirin Gadhia from West Germany. She has come to India on a tour for spreading the news of conservation, especially that of water conservation and of its efficient use in agriculture. She demonstrated how stored water could be used over a period of four or five years, and how farmers could use water sparingly in times of emergency.

She also gave a slide and poster illustrated talk for the benefit of the farmers around the Atul township where this programme

was arranged for 800 NCC girl cadets from Rajkot, and a lecture on "Environmental conservation by the youth force" by Mr. Rajendra M. Desai was also held at the Gurukulsupha, Navsari for the cadets.

BARODA

The Baroda Division of the WWF-I organised a painting competition for physically handicapped children at the Home for the Physically Handicapped, Nizampura, Baroda to celebrate World Environment Day. This



Handicapped children taking part in a poster painting competition.

competition was held with a view to foster among these children the love and appreciation of the natural environment. Of the children that took part, the two winners Mr. Vishram P. Chorasia and Mr. Kushal P. Shah were awarded prizes by this division of WWF-India.

Eastern

Region

CALCUTTA

WWF-India, ER office has been appointed as a regional resource agency for the National Environment Awareness Campaign 1988, being conducted with support from the Ministry of Environment and Forests. Visits have been made to a few districts and towns to promote suitable NGOs to participate in this campaign. This has been a very enlightening experience. Other than promoting projects the campaign includes a country wide Teacher Training programme to be conducted by the Centre for Environment Education, and thereafter, teachers training programmes that will filter down to the district and the sub-division levels.

At a co-ordination meeting held on 20th July co-hosted by WWF-I (ER) and the ZSI more than 20 representatives from NGOs, teachers training centres and schools were briefed about the campaign.

The Environment and Ecology Cell of

HQ Eastern Command invited the Regional Organiser, Major Bir to give a talk on conservation and the Army's role, as the WWF-India sees it. The function, attended by about 60 senior officers, was held at Fort William, on 15th of July. The following evening the Regional Organiser gave a talk on the role of the World Wide Fund for Nature.

At a well represented meeting of NCI advisors and WWF-India volunteers at Jamshedpur the Regional Organiser discussed prospects to promote the NEAC '88 programme around the 'Steel City.' Wildlife programmes were

conducted at the Telco Management Training College, The Telco Club and the Telco Staff Association.

The Telco factory, a massive area of tar, steel, rail, power and noise - has recently had some unusual visitors. A large python was found earlier this year, coiled around one of the rafters in the machine shop. Very recently another python was found sheltering itself in a corner of a ware house. A monitor lizard, being chased by local volunteers, ran into the protected area through a gap in the factory's fencing, looking for a hiding place. These animals were gently and considerably extricated by sympathizers and WWF volunteers, and were transported to the Dalma Wildlife Sanctuary where they were released.

A series of successful experiments have been taking environmental education to the rural people of the Amgachia group of villages. The Child in Need Institute (CINI) along with Loreto School, Sealdah have an ongoing training programme at approximately 20 local schools. At the annual science exhibition in June '88 this office got actively involved and added a section on Environment and Conservation. The audio-visuals 'Why Conserve Nature', 'Lord of the Jungle', 'Wonderful World of Snakes', 'Blueprint for Survival' were shown to the students and adults explaining the relationship between man's survival and the survival of the natural world.

For the younger children the audio-visual 'Wonders Around You' proved popular. Games were played to illustrate

the predator-prey relationship and understand better the role of camouflage and the concept of ecology. These activities are expected to continue as an on-going programme.

At a simple ceremony held at Cadbury House recently, Mr. A. Lakshmanan, Vice President (Sales and Marketing) HCPL, presented a cheque of Rs. 1 lakh to Mrs. Srinivasan as part-proceeds

ment plant. The response to the notice for this trip was overwhelming due to which some of the subscribers could not participate. Therefore a repeat trip was organised on the 26th of June

The consolation prize for the essay competition was awarded to Mr. Girish Raghuraman. Congratulations to all the prizewinners!

On the 18th June 1988, in an effort to form a Nature Club in the Yerwada area the audiovisual 'Lord of the Jungle' was screened at the residence of a WWF volunteer Mr. Titus D'Souza, while another volunteer Miss Vinita Tatke delivered the commentary. The Education Officer spoke to an audience of about twenty five people on the World Wide Fund for Nature-India and its activities. WWF-I would like to thank Mr. Titus D'Souza for hosting the show.



Brave TELCO worker with an unusual visitor.

Maharashtra

BOMBAY

WWF-India, Maharashtra & Goa States Committee under the chairmanship of Mrs. Geetha Srinivasan held an exhibition-cum-sale of paintings by renowned artists at the Jehangir Art Gallery. The exhibition was inaugurated by Mr. R. N. Malhotra, Governor, Reserve Bank of India with Mr. V. G. Rajadhyaksha, Regional Trustee present. The exhibition consisted of contributions of renowned artists. K. K. Hebbar, B. Prabha, Rekha Rao, Prafulla Dahanukar and the late K. H. Ara were some of the artists who, submitted their work. A percentage of the sale proceeds went to the artists. Funds raised will be used for conservation and education projects.

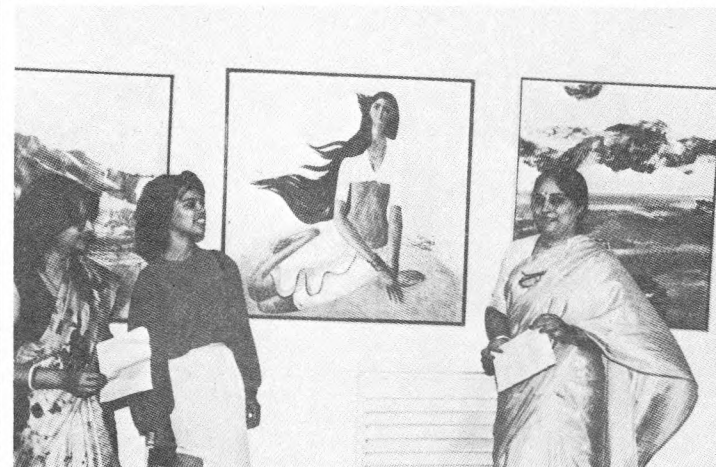
The Maharashtra & Goa States Office also appealed to its subscribers with regard to a fund-raising souvenir. A special mention must be made of the life subscriber from Pune, Mr. D. C. Dady who responded by giving a personal advertisement of Rs. 5,000. Thank you Mr. Dady.

Hindustan Cocoa Products Ltd. (HCPL), manufacturers of popular Cadbury's chocolates had launched a range of Cadbury's Wild Life bars, for which the company had entered into a unique tie up with World Wide Fund For Nature-India (WWF). The tie up envisaged a contribution to the WWF-India based on the number of wildlife bars sold.

from the sales of these wildlife bars.

According to company sources, the concept of a wildlife bar and the tie up with WWF-India has not only helped spread the message of nature conservation but also had a unique effect on the sales of the company's chocolates.

It is hoped that other corporate entities come forward to help WWF-India and promote their products as well through similar activities to help serve a worthy cause.



Geetha Srinivasan, Chairman, M&GSO with staff at the fund raising exhibition-cum-sale of paintings.

PUNE

On the occasion of World Environment day 5th June 1988, a subscriber outing was arranged to the TELCO lake and the effluent treat-

ment plant. Birds, plants and trees were identified at the artificial lake and the functioning of the effluent treatment plant was observed.

On the 12th of June 1988 a reunion for the participants of the Bhimashankar Summer Camp was organised at the Bhavdhan farm where the education Officer, Mr. Kiran Purandhare awarded prizes to the best campers and the winners of the essay competition. Miss Fenil Potnis and Mr. Mohnish Rana, and Miss Farahnaz Khambatta

and Mr. Bhushan Deshpande were chosen as the two best campers for each of the first and second batches respectively. Miss Chaitra Puthli and Mr. Yogesh Wadadekar were awarded the prizes for the best essays in the junior and senior groups respectively.

Northern Region

NEW DELHI

The Delhi Union Territory Committee of the WWF-I was constituted in the earlier part of this year under the chairmanship of Mr. K. P. Singh Deo, M.P. with the aim of supporting the Delhi Administration's efforts to protect the natural environment of the capital.

A study carried out by the committee on the capital's deteriorating environment led to the following conclusions

- * Nearly 40% of the Ridge forest area has been destroyed and replaced by a concrete jungle, and a total of about hundred hectares of forest area has been lost between 1957 and 1983.
- * Tree cover (excluding parks) has shrunk from 2.5% of its geographical area to 0.7% during the past 30 years and the degradation continues unabated.
- * A major water crisis is like to occur by 1990 due to the excessive demands put on this resource by the ever expanding population, and uncontrolled pollution.
- * 50% of the air pollution is accounted for, by vehicular traffic consisting of eight lakh vehicles on the road, and a growth rate of eighty thousand per year. Two hundred and fifty tons of carbon monoxide is released into the air every day. The thermal power stations at Badarpur, Indraprastha and Rajghat release one hundred eighty tons of flyash and seventy tons of sulphur dioxide into the atmosphere every day.

The development of a wildlife sanctuary was proposed by the Delhi U.T. Committee on three thousand acres of land near Asola village. The proposal was accepted and plans are already afoot to revegetate the area, by the Delhi Administration.

THE AMAZON

Going up in Smoke?

In a recent issue of the environmental journal *Ambio*, Jean-Paul Malingreau and Compton Tucker presented a startling new picture of deforestation in the Brazilian Amazon.

Using Meteosat satellite imagery to analyse recent changes in forest cover in the states of Acre, Rondonia and Mato Grosso, they discovered that some quarter of a million square kilometers of forest is affected by disturbances. Of this, about 90,000 square kilometers (an area the size of Portugal) had already been deforested by 1986.

Malingreau and Tucker found that in Acre, more than 2,800 km² was deforested between 1978 and 1986, whilst at least 56,646 km² of

The nature of the complex interaction between the fish of the Amazonian aquatic ecosystems and the surrounding tropical forest, has become more clearly understood thanks to Dr. Goulding's extensive research into the habits of fish.

The fish of the Amazon have evolved and adapted to specialized roles in their watery habitat. Many, depending on the fruit and seeds of trees and plants that hang over the banks of the tributaries.

These fish either wait patiently under trees for the fruit to drop or actually pick them of branches which hang over the water. As a result of this diet the fish assist with seed dispersal far along the river.

The most urgent problem facing the fish, is the intensification of commercial and local fishing along the Amazon. The fisheries are not controlled and the result is rapidly

exchanges it through the Central Bank of that country for local money at the nominal value of the debt. This money has to be invested in a local enterprise. The rescheduling of debt for conservation is based on this latter procedure and has been developed by environmentalists in a number of countries including Costa Rica and Ecuador.

The effect of the exchange procedure is spectacular: thus one hundred dollars of donation make it possible to buy 282.08 dollars of debt which will yield 93.42 dollars in interest in the first year. Calculated over the whole period, and without taking devaluation into account, the system will produce more than eight times the original donation.

In Chinese the symbol for 'crisis' has two distinct meanings: 'conflict', and 'opportunity'. The idea is marvellously apt for the Latin American debt crisis. Those countries which

international obligations and at the same time to protect, administer and conserve their natural heritage.

RELOCATED AIRPORT SAVES WETLAND

Conservationists have welcomed the announcements by the Chinese government that a major airport will not be built adjacent to the Mai Po marshes nature reserve, one of Asia's prime wetlands. Following a campaign mounted by WWF and other environmental groups, the Chinese government has said that it may re-locate the airport site about 60 kms from Shenzhen.

David Melville, Manager of WWF's Mai Po education centre and nature reserve said "However, our worries are not over. A large rubbish dump will be located near the marshes and worse still, the government of China is expected to start dredging and straightening the Shenzhen river. We are concerned over the effects of the possible damage not only to Deep Bay and Mai Po but also to the Fu Tien nature reserve."

Situated on the east shore of Deep Bay in the northwest sector of Hong Kong, the Mai Po marshes are part of a much larger wetland system—the 115 square kilometre Deep Bay which contrary to its name, has an average depth of only three meters. Mr. Melville fears that the water quality of the bay will be adversely affected if the river straightening scheme goes ahead since the marshes rely on Deep Bay for their water supply. He warns that industrial and agricultural wastes that have settled on the river bed would also be stirred up and flushed into Deep Bay.



Indiscriminate cutting and burning in the Amazon.

the Amazon forest has been destroyed in the Mato Grosso. In Rondonia, where the government is promoting a frontier expansion scheme, the situation is looking very bleak indeed. So-called 'explosive' deforestation is taking place there, with destruction rising from 1,217 km² in 1975 to 17,000 km² in 1984 and then 27,000 km² in 1985.

The scientists say of Rondonia that 'The exponential rate of increase in deforestation during 1975-1985 will lead, if maintained, to the disappearance of about 50% of the state's tropical forest by the early 1990s and its complete disappearance by about the year 2000'. Much of the disturbance and deforestation is associated with the paving of roads like the BR-236 to Rio Branco, and the 364 in Rondonia. The roads allow migrants to flood into previously inaccessible forest areas, where they use fire to clear land for settling. Selective logging combined with slash-and-burn frontier expansion is rapidly turning forests into fire-sensitive ecosystems.

The fish and forests

The Amazon and its tributaries provide some of the richest and most diverse habitats in the world. One river alone, the Rio Negro, has over 700 fish species; 200 more than Canada and the US together. In over 5 years of field study centering on the relationship between fish and the forest in the Amazon Basin, Dr. Michael Goulding, funded by WWF, has himself discovered over 300 new species. However, due to the impact of human activities and the increasing destruction of the tropical forest and the effect this had on the rivers, it is believed that many more species became extinct before they were even discovered, and predicted that the same fate awaits others.

decreasing populations of the fruit-eating fish. Equally important is the increase in industrial activities and extensive deforestation along the rivers endangering the important fish feeding and breeding grounds, further threatening the lives of many species endemic to the Amazon Basin.

WWF, through Dr. Goulding's projects, is working to understand and thus try to ensure the survival of the habitats of many of the world's most unique and specialized fish.

DEBT SWAPS

Conservation opportunities born of a crisis

There has been much talk amongst conservationists recently about 'debt for nature swaps'. However, few people outside the mysterious world of banks understand what is really happening.

The problem of unliquidated debts accrued by debtor countries—caused by increasing rates and greater needs for capital—was initially tackled by renegotiation and rescheduling. In 1982 a secondary market in debt developed, in which the debt of one country was exchanged for that of another (debt swap); the debts were fixed in the market at a certain percentage of their nominal value; those of countries in economic difficulties being sold at a large discount.

In 1986 a new instrument appeared, the exchange of debt for capital. Under this system an investor buys at a discount the debt of a country in which he wishes to invest, and

have difficulties in repaying their debts and directing their resources to conservation have found, in the re-scheduling of their debt for the benefit of conservation, an excellent opportunity to reduce the total of their

Wild river in Costa Rica invaded

Costa Rican conservationists are protesting the invasion of an officially designated Wild River there by crews of the Costa Rican Electrical Institute, who are laying plans to dam the river.

The river in question, the Pacuare, was put in a Protected Zone by Presidential decree in 1986. The U.S. Agency for International Development provided funding for the studies that led to the decree. The Pacuare runs through a deep gorge in virgin tropical forests, dropping as much as 100 feet per mile. Waterfalls lace the sides of the gorge. The area is heavily used by rafters and other river runners.

The Costa Rican Electrical Institute has pushed an access road into the Protected Area and is clearing areas to make tests for a hydroelectric dam. They are hoping to build a 200-meter-high dam in the gorge and flood a 15-kilometer length of the river. The project, which is known as the Siquirres project, would cost some \$600 million and funding would be sought from the World Bank or a similar institution. No independent environmental assessment has been undertaken.

Friends of the Pacuare in Costa Rica are asking that letters of protest be written to:

President Oscar Arias
Casa Presidencial
Zapote
Costa Rica

BREAKTHROUGH ON SOIL EROSION

The U.S. Department of Agriculture recently reported, with some pride, that soil erosion on U.S. cropland was reduced by 460 million tons between 1986 and 1987—making for the greatest year-to-year reduction ever recorded anywhere. For a country that was suffering excessive soil losses on nearly 40 percent of its cropland, this was welcome news.

"Ironically, the program responsible for this dramatic reduction originated not with the USDA, but with a coalition of environmental groups," according to Lester R. Brown, president of the Worldwatch Institute, a Washington, D.C.-based research organization.

"Worldwide, an estimated one-third of all cropland is losing topsoil at a rate that is undermining its long-term productivity. Grave though the loss of topsoil may be, it is a quiet crisis, one that is not widely perceived. And unlike earthquakes, volcanic eruptions or other natural disasters, this human-made disaster is unfolding gradually."

Often the very practices that cause excessive erosion in the long run, such as continuous cropping and the ploughing of marginal land, lead to short-term production gains that create an illusion of progress and a false sense of security.

"Headlines during this decade have focused attention on a world awash in grain and on the depressed prices that have resulted. The real story, however, is not the surpluses but the soil losses incurred in producing them. The surpluses are a fleeting phenomenon, but the soil losses will have a lasting effect on land productivity."

"The conservation provisions of the Food Security Act demonstrate the pivotal role public-policy research institutes and environmental groups can play in raising public awareness and engineering an effective political response to serious environmental threats. Public concern over heavy soil losses culminated in overwhelming support for the new legislation in Congress, with members from both sides of the aisle vying to be identified with the legislation."

Lessons learned in the effort to pass the Food Security Act apply to other countries as well, Brown concludes. Although the immediate effects of soil erosion are economic, the ultimate effects are social. When soils are depleted and crops are poorly nourished, people are often undernourished as well. Failure to respond to the erosion threat will lead not only to the degradation of land, but to the degradation of life itself.

LOVE SPELLS DOOM FOR PANDA

Conservationists are seriously questioning the merits of 'panda loans'; arrangements in which Chinese authorities receive payments from zoos for the use of the animal for display purposes. Although the earnings are made on the understanding that the Chinese will use the money for panda conservation, conservationists are worried that the loans are hindering the future survival of the critically endangered species.

The population of the giant panda—WWF's symbol for over 26 years—has dwindled

to less than a 1000 animals in the wild, and another 100 in captivity. Despite this, pandas continue to be taken from the wild to maintain the captive population in China, which does not appear to be self sustaining. William Reilly, President of WWF—U.S. said that display animals should be returned to the wild or placed in captive breeding programmes as soon as possible because "if it is feasible for a panda to breed we must give it a chance to do so."

WWF has also urged member nations of CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora) to stop further imports of pandas for exhibition purposes. Such imports are not allowed under CITES when their main purpose is economic gain. In addition, the Chinese government ordered its courts to impose severe sentences on panda poachers and smugglers ranging



Giant Panda

from ten years imprisonment to the death penalty.

The 'Big Nose' Disclosure

A small victory can be recorded in WWF's fight for the protection of endangered species. It was reported that a restaurant in Shenzhen specialised in wildlife dishes featuring, very often protected and endangered species such as Chinese tigers, pythons, eagle owls, and clouded leopards. This restaurant, run by Mr. Lam Wai Hang, alias Big nose, from Hong Kong has been closed down.

Although, it was originally set up as a staff canteen for the Honey Lake Resort Hotel, the gourmets of Hong Kong soon found it out and spread the word. Mr. Lam, soon realised the vast potential of the restaurant and, thus began the preparation of the most exotic dishes. Thankfully, it was its fame as a specialist restaurant that led to its exposure.

A visitor to Hong Kong, Mr. Belfour of the U.K. RSPCA, was making a fact finding visit to the notorious market in Shenzhen late last year, when he was approached and offered pangolins and owls. Mr. Belfour went along, took photographs and was then offered something 'even better'. Again he followed along and ended up at Big Nose's restaurant. There he saw many caged wild animals and was offered some exotic wildlife dishes. As soon as he got back to Hong Kong he informed WWF-Hong Kong.

WWF-HK initiated a visit to the restaurant in the company of a Shenzhen official, Lee Gang, Director of the Fu Tien Reserve. There they found, as had been rumoured, 36 pythons, 38 macaques, 42 owls, 60 pangolins, more than 30 giant salamanders and the skins of four clouded leopards.

What was surprising, was the continued supply of fresh wild animals. The only possible explanation for this sustained supply could be a zoo, and that is how it turned out to be. Part of the hotel's tourist attractions. "The China Entertainment Area Zoo" brought in protected and endangered species and then killed them to order. The so-called zoo had no qualified personnel to care for the animals and the facilities were appalling. The animals were kept in small cages as they joined the queue to the cooking pot.

Cooperation between the various authorities in Shenzhen and WWF-HK is now increasing. The positive action taken in curtailing Big Nose's operation is an encouraging sign for the future and is good for conservation.

PANDA
courtesy: WWF-HK

DEVELOPMENT POLICIES IGNORE WOMEN

Though women make up the majority of the world's poor, development assistance has consistently failed to increase their economic opportunities, says Jodi L. Jacobson, a senior researcher at the Worldwatch Institute, a Washington, D.C.-based research organization. Should the development community not adjust its strategies to include women, then high fertility, poverty, and environmental degradation will persist in many regions.

Jacobson notes that women provide 50 percent

facturing. They also represent over two-thirds of the "informal" economic sector in developing countries.

"But despite their critical economic and social contributions, women in the developing world have few legal rights. Because many women are outside the cash economy and lack control of money and land, the value of their work is either completely unrecognized or severely underestimated by development planners. As a result, strategies aimed at raising third world productivity and income often bypass women."

In sub-Saharan Africa, women grow 80 percent of the food destined for their own tables. Collecting the water and fuel needed to cook it takes several additional hours of their day. Women also tend animals, market farm products, and raise children.

"Yet African women, like women throughout the Third World, have limited access to development programs and reap few benefits from them. They cannot legally own land and, so, are routinely excluded from cash-crop and irrigation projects that target landowners."

Women are also disadvantaged because they lack access to improved agricultural and mechanical technologies, neither of which they can afford because lack of collateral—land—deprives them of credit.

"A new ethic of development is called for, one that recognizes and builds on the role of women, bringing them into the economic mainstream," Jacobson concludes. "In the United States, Congress is considering the Women in Development Act of 1988, which would mandate that AID incorporate women and local women's groups into all its projects in proportion to their traditional participation. Other governments should encourage similar action by the World Bank and the International Monetary Fund."

of agricultural labour worldwide and more than 70 percent of the work force in such low-technology industries as clothing manu-

RARE CORAL REEFS THREATENED

One of the most outstanding examples of rare blue coral in the Pacific is threatened by construction of a proposed airport. The airport would extend into the Shiraho Lagoon, which features these coral reefs, on Ishigaki Island in the Ryukyu chain south of Okinawa.

The Shiraho Lagoon supports more than 100 species of coral, including several which are endangered.

The coral are accompanied by an unusual abundance of fish species. Blue corals *Heliopora coerulea* are more abundant here than almost anywhere else and grow into aggregations tens of meters in diameter. The coral formations are also free of infestation by crown-of-thorns starfish, which threaten many other coral formations.

The island already has an airport with connecting flights to Okinawa, but promoters want a larger second airport to encourage more tourists to fly directly from Japan. The airport would fill a considerable portion of the lagoon, and the rest would be adversely affected by sedimentation and polluted runoff from the airport.

Development on a nearby island has already killed the coral in an underwater national park there (Iriomote) and 80 percent of the coral formations in the Okinawa prefecture have been damaged by development. Extension of the runways in the present airport is suggested as an alternative.

The airport is being pushed by the government of Ishigaki Island and would be built by the Construction Ministry of Japan. It is being opposed by the village of Shiraho, the Nature Conservation Society of Japan and the Wild Bird Society of Japan.

Those wishing to help should write to the village chairman, who will forward letters to the right authorities:

Mr. Chosuke Hanashiro
Chairman, Shiraho Village Hall
Shiraho Village, Ishigaki City
Okinawa, Japan 907-02

GLOBAL WARMING

The need for Action

In 1985, the world's leading atmospheric scientists concluded in Austria, that we may experience "in the first half of the next century, a rise in global mean temperature... which is greater than any in man's history" as "a result of the increasing concentrations of greenhouse gases in the atmosphere".

The U.S. National Academy of Sciences has estimated the potential increase in the next 50 to 100 years at between 1.5 and 4.5 degrees centigrade. The lower estimate would bring global temperatures to a level not seen in 6000 years; the higher estimate would bring average temperatures to a level not experienced since the Age of the Dinosaurs.

The "greenhouse gases" include carbon dioxide, nitrous oxide, chlorofluoro-carbons (CFC's) and methane. Emissions of all these gases are increasing rapidly. Scientists estimate that carbon dioxide will account for about 50% of the warming effect, chlorofluoro-carbons 20%, nitrous oxides 7%, methane 12% and other trace gases, the remainder.

Among the certain consequences of global warming are sea level rise as oceans expand and polar ice melts; extraordinary changes in weather and rainfall patterns and distribution of forests and plant life; and disruptions in agriculture. Until now, changes like these have occurred over millennia. Now they would happen on a time scale measured in decades.

The consequences would be catastrophic:

- A two-foot rise in sea level, within the range of current predictions would inundate 20% of the inhabited land of Egypt, and force salt water into coastal drinking water systems around the world.
- One U.S. government model predicts a tripling of the number of days above 35 degrees centigrade in the mid-latitudes if the average global temperature rises only 1.7 degrees centigrade. Such conditions are certain to reduce crop yields and change existing patterns of agriculture.

We have already entered an indefinitely long term period of climatic instability. The attempt to cope with these rapid, unprecedented changes could absorb much of the available economic surplus produced by humankind, putting an end to improvements in living condition and threatening the very survival of hundreds of millions in poor countries. Those who counsel delay until science answers every last question, and those who rely on adaptive responses to keep pace with climatic change, are living in a fool's paradise.

If the world is to prevent the catastrophic effects of global warming, we all must work together. Non-governmental organisation must mobilise public opinion and be at the forefront in convincing policy-makers of the need to act and to put aside calculations of national advantage. Political compromises are not good enough when we are violating planetary limits.

CHILEAN PARK FACES NEW THREAT

Conservationists in Chile are raising alarms over plans to push inappropriate development in one of their most unique national parks, Juan Fernandez. This park consists of a chain of islands 650 kilometers west of Chile in the Pacific Ocean and features a richly endemic flora and fauna. In recent years it has also been designated internationally as a Biosphere Reserve.

The government of Chile has now proposed to convert the national park into an offshore banking and tourist center, with plans to construct banks, casinos, hotels and various roads. No environmental impact study has been prepared, nor has the national park office in Chile been consulted.

The development would violate national park standards, threaten rare biota, and hobble ongoing scientific research on the islands. Juan Fernandez National Park is already on the IUCN's Register of Threatened Protected Areas because of "introduced plants and

animals and erosion caused by livestock grazing."

The Comité Nacional Pro Defensa de la Fauna y Flora in Chile is calling for a halt to the development until a thorough environmental assessment is done, with international participation, and is urging that only appropriately compatible development be allowed on the islands. They have asked that those who are concerned express their feelings to:

Presidente de la Republica
Palacio de La Moneda
Santiago, Chile

QUESTIONS ABOUT TRANSMISSION TOWERS

Environmentalists in Israel are raising questions about the dangers that may be posed to migrating birds by transmission towers that the Voice of America wants to build.

As a land-bridge between Eurasia and Africa, Israel provides a crucial corridor for millions of migrating birds each year. Storks and pelicans in particular depend on thermals to soar over this area; raptors rely on it too because they must land each night.

The Voice of America wishes to build a complex of transmission towers in Israel to beam its programs into eastern Europe and the southern parts of the Soviet Union. Israel has agreed to provide a site, and the one chosen is in the Negev desert in the Arava Valley. A complex of 22 illuminated towers is planned, each 200 meters high, criss-crossed by a maze of wires and net antennas and emitting powerful electro-magnetic radiation.

Environmentalists are concerned about migrating birds colliding with the towers, becoming enmeshed in antennas and being disoriented by the radiation. In the U.S., it is estimated that as many as 1.25 million birds die each year because of collisions with radio and TV towers. Tests have suggested that electro-magnetic radiation can cause birds to lose their sense of navigation, though more research is needed. Moreover, the chosen site is critical habitat for the rare sand cat (2000 acres would be preempted).

The Society for the Protection of Nature in Israel is asking those concerned to write the Voice of America to request that plans not go forward until environmental assessments can provide reassurance that these concerns will be dealt with satisfactorily.

Voice of America
330 Independence Ave., SW
Washington, D.C. 20024
USA

Wildlife laws flouted in the Sudan

Conservationists in the Sudan are protesting punishment meted out to honest wildlife agency officers who tried to enforce that country's wildlife laws.

The controversy was triggered by outrage over the failure of leaders of Sudan's Wildlife Conservation Forces, the country's wildlife enforcement agency, to stem the decimation of its wildlife. Despite a ban on taking Dorcas Gazelles in the desert, more than 100 of them have been taken for export recently, and parties from such places as Saudi Arabia are given clearances to hunt them.

Despite a near ban on hunting elephants, it is estimated that about 12,000 were killed in 1987 and 7000 the prior year. Eighty percent of the country's elephant population was slaughtered in the first part of this decade. Illegal ivory is routinely stamped as legal by officers of the agency. When 1276 tusks were discovered last year in an Omdurman warehouse, junior officers were ordered to certify it as legal instead of arresting the owner.

In reaction against such flouting of the law, 31 wildlife officers at lower and mid-levels drew up a series of complaints directed at top officers of the agency, asking for reform. Instead, they were charged with insubordination and subjected to trial. Three were dismissed and the rest subjected to suspension, reduction in pay, and other punishment. The three who were dismissed had refused to sign a license for the export of gazelles. The findings of the court are now being reviewed by the Minister of Interior.

The Sudan Environmental Conservation Society is trying to rally world opinion to reverse the decisions. Those concerned who would like to urge reforms and reinstatement of these honest officers should write to:

The Honorable Sadiq El Mahdi
Prime Minister of Sudan Khartoum,
Sudan

INERTIA ON THE OZONE TREATY

Conservation officers of WWF organisation in twelve European countries called for immediate ratification by the European Committee (EC) of the Montreal Treaty of the Vienna Convention which aims to protect the ozone layer from further damage by limiting the production of chloro fluorocarbons (CFC's).

The Montreal Treaty has so far only been ratified by Mexico and the US. According to Dr. Peter Kramer Director of Conservation of WWF-International, the U.K., West Germany and France are the world's largest producers of CFC's after the U.S.

In a recent interview, with WWF news at WWF-International headquarters, Ambassador Richard Benerdict, the principal negotiator for the ozone treaty and senior fellow at the Conservation Foundation said "The protection of the ozone layer lies not in new unilateral US controls or a 'new' treaty, but in the earliest and widest possible international acceptance of the provisions and procedures negotiated in Montreal."

CFC's are man-made chemicals used for aerosol propellants, refrigeration purposes and in the manufacture of foams.

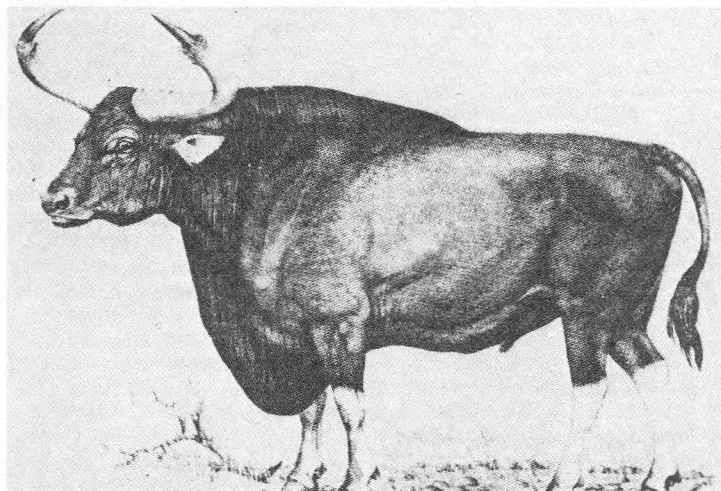
CFC's are implicated in the destruction of the ozone layer which absorbs ultra-violet radiation which is harmful to humans, plants and animals.

KOUPREY SIGHTED IN INDO-CHINA

Vietnamese biologists have announced that one of the world's rarest and most elusive animals has been sighted by a scientist for the first time in nearly twenty years. The Kouprey, or grey ox of Indochina, was spotted by a Vietnamese survey team, while the animal was browsing in a densely forested area near the Laotian border. The Kouprey which is often confused with other

Dr. Khoi revealed his sighting at an international "Workshop on the Kouprey conservation Programme", hosted by the government of Vietnam and funded by WWF and the Swedish International Development Agency. The meeting, chaired by Prof. Vo Quy, Dean of Biology at the University of Hanoi, brought together for the first time ever, experts from Vietnam, Kampuchea, Laos, Thailand, Malaysia, Sri Lanka, the US and Great Britain. Delegates at the workshop included members of IUCN's Species Survival Commission (SSC), Captive breeding, Veterinary, and Wild Cattle Specialists Groups and members of the international zoo community.

The participants drew up a Kouprey Survival Plan to be published by WWF and IUCN later this year. The plan calls for a broad conservation programme including surveying the Kouprey range in Indochina and establishing as soon as possible a captive breeding



Kouprey

species of wild cattle, was distinguished in the fading evening light because of its long dewlap, said Dr. Le Vu Khoi, of the University of Hanoi. "We saw the Kouprey at a distance of about 50 metres. It moved slowly and disappeared into the dense bushes and trees."

programme. The first objective of the plan is to save the Kouprey in the wild through the establishment of trans-frontier reserves. Since, Kouprey wander freely across the borders between Laos, Vietnam, Kampuchea and Thailand, the participants recommended that

NGOs Championed by World Bank Chief

Barber Conable has been president of the World Bank for nearly two years. Here, is an excerpt of the interview with Robert Walgate of Panos, on the role of NGOs.

ONE of the most encouraging things in the business of development nowadays is the growth of indigenous NGOs in the Third World. It used to be that if you wanted to talk with someone about unofficial action in areas like the environment, you had to talk with someone in London, or New York, or Toronto—and in fact in many cases they were not very well informed about the areas where we were conducting our operations.

However, many of these environmental and non-governmental organisations have been replicated recently in the Third World itself, and so we can deal with people where the projects are going on, and be sure that the governments with whom we deal in the Third World do have access to the same kinds of inputs that NGOs give to more developed governments. Ultimately, I think that's the answer—to have uniform concern about the environment around the world, rather than concern in a few places in the developed world.

You must understand that the projects (which we

support) are not World Bank projects: they are government projects conducted by the host with Bank financing. Now, we can impose a certain amount of conditionality in the financing, but ultimately we do not consider ourselves neo-colonialists: we do not believe we should substitute our judgement for the judgement of the duly elected representatives of the people in those countries. It is therefore, very important for NGO's to develop and put the necessary democratic pressure on the host governments, to be able to prevent the intrusion of external values like ours.

This is a matter of concern at the highest level in the World Bank—I'm speaking for the management when I say this.... I would urge NGOs, people concerned about Bank policies, to contact the Bank's representatives—and I have instructed these people to be sensitive to the NGOs. They can be eyes and ears for us in the proper implementation of sustainable development policies."

Courtesy: PANOS FEATURES

survey teams be allowed to cross frontiers when necessary.

ENERGY EFFICIENCY BOOSTS ECONOMY AND THE ENVIRONMENT

Energy efficiency is now a key determinant of national economic competitiveness. "Nations that want to compete effectively in international markets have no choice but to raise their energy efficiency," said Christopher Flavin and Alan B. Durning, co-authors of *Building on Success: The Age of Energy Efficiency*. "Improved energy efficiency is also an environmental necessity. Efficiency can help reduce oil imports, limit urban air pollution, control acid rain, and head off global warming from the buildup of atmospheric carbon dioxide."

"We have entered an age of energy efficiency," Flavin and Durning said, "But societies still waste billions of dollars on power plants and oil wells when efficiency costs only a fraction as much. With lower oil prices, some governments have grown complacent, and are slowing."

However, a new generation of superefficient devices, from 100-mile-per-gallon (MPG) automobiles to 18 watt fluorescent light bulbs, can extend this progress. Such devices allow conservation without sacrifice, applying modern technology to use energy resources more efficiently. "The potential to improve energy efficiency is inarguable, and its economic and environmental importance is unassailable" Flavin stated. *Building on Success*

outlines policy reforms that would boost energy efficiency by putting it on an equal footing with energy supplies.

"Third World nations have the largest stake in improved efficiency. It can substitute for the new power plants and imported oil that threaten to drive them ever deeper in debt." The co-authors observed. "Many developing countries are in the energy intensive phases of industrialisation, and their inefficiency penalises them in increasingly competitive world markets."

Energy prices, which in most countries are influenced by government policies, can be used to temper the impact of oil price swings. Sweden and Denmark, for example, have raised gasoline taxes to offset the decline in world oil prices. Unfortunately, many third World nations subsidize fuels, discouraging efficiency. These subsidies can be removed if governments act to offset the effect of higher prices on the poor.

The U.S. appliance efficiency act of 1987 will save utilities from building 22 new power plants by the turn of the century, and also reduce cumulative carbon emissions by 342 million tons. But even then "both the United States and the Soviet Union are failing to capitalise on efficiency research and development." Today, as much energy leaks out of American windows as flows through the Alaskan pipeline, but new "Superwindows" with heat trapping films insulate as well as a normal wall.

Minifluorescent 18 watt light bulbs can replace 75 watt incandescent ones. Studies in the United States show that energy consumption can be reduced by 40 percent in existing buildings, and by 75 percent in new ones. "Energy efficiency is an essential ingredient of economic and ecological progress," concluded Flavin and Durning. "Its status should be charged more closely as productivity or inflation. Energy efficiency must be transformed from a watchword of specialists to a centrepiece of national and international economic philosophy."

Awareness, Via-Mail

MAJ. GEN. E. D'SOUZA, PVSM (Retd.)

Former Secretary General, WWF—India.

It was a very exciting and productive visit to Brasilia where I attended the XIth International Primatological Congress. I was invited not as a primatologist but as an associate speaker and panelist for the session on Education and Awareness programmes at the day long symposium on conservation. Over seven hundred delegates including a few from the U.S.S.R. and the Republic of China attended this five-day congress in Brazil—the land of the new world primates. To mark the occasion the Brazillian Postal Service released three new stamps.

BRAZIL



- Designs and Value
- CzS 20.00—Giant Anteater
Myrmecophaga tridactyla
 - CzS 50.00—Thin-spined porcupine
Chaetomys subspinosus
 - CzS 100.00—Bush Dog
Speothos vinaticus

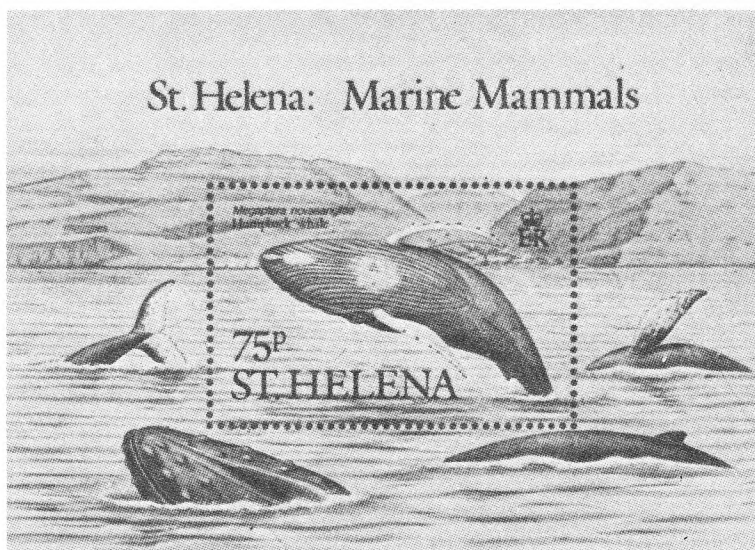


In addition to these new issues, a number of older issues featuring mammals, avifauna, flora, reptilia and marine and aquatic life endemic to Brazil were displayed. However, efforts to acquire these stamps at the Philatelic Bureau of the Brazillian General Post Office proved quite unproductive.

The number of issues featuring Brazillian primates attracted my attention, since India despite having a number of primate species had, according to Mona Parikh (a primatologist in her own right),

released one issue on the Lion-tailed Macaque and another on the Golden Langur.

This series of articles on Bio-Philately, has attracted a number of responses, the most exciting and informative being one from a young advertising executive, Eric Ramanujan of 10, East Main Road, Gopal Reddy Colony, Perambur, Madras 600 082. He tells me that in America and Europe, Bio-Philately is



one of the major sub-divisions of Thematic Philately. The American Topical Association (A.T.A.) brings out periodicals that deal solely with this subject covering such special topics as mammals, birds, flora, reptiles and aquatic and marine life. The A.T.A. lists out all wildlife stamps zoologically (orders, sub-orders, families, species and sub-species) countrywise. The famous London firm Stanley Gibbons, sensing the conservation wave, is now producing catalogues entitled "Collect Birds/Mammals on stamps". Eric recommends to all wildlife stamps collectors to read a very educative booklet "Introducing Thematic Stamp collecting" by Alma Lee, FRPSL. (Fellow of the Royal Philatelic Society, London). Eric has exhibited panels on Birds (Aves) at the All India Philatelic Exhibition for Juniors in the special invitee section. The exhibit is divided into orders, families and species. He is now preparing one on Mammalia. He has very kindly agreed to collaborate with me in setting-up an exhibition on wildlife stamps featuring endangered species and Indian wildlife. We hope to persuade WWF-India's Southern Region Trustee, Mr. M. Y. Ghorpade, MP, to exhibit his internationally acclaimed photographs on wildlife (B & W). We are approaching the British Council Division to sponsor the exhibition to be held in

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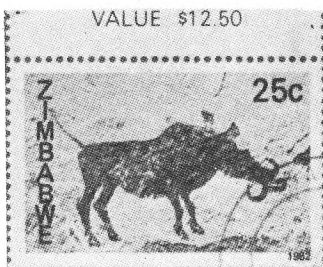
..... Contd. from overleaf

November 1988. If any of WWF-India's subscribers are interested in this fascinating hobby do please contact Eric.

Cave paintings have long been used to depict various life forms.

The following stamp issues (1982) reproduced here, portray mankind's fascination with fellow creatures.

ZIMBABWE



Designs and Value — \$12.50—African Warthog
\$10.50—Giraffe

And to round-off this article, subscribers will be interested to note the pains taken by some countries to publicise wildlife stamps:

ST. HELENA

Designs and Value — 0.75—Humpback Whale

MALAWI

Designs and Value — 0.10t—Hippopotami
0.25t— "
0.30t— "
1.00t— "



In the Mail

Birgit Reiss Siedlung, 259a2091, langau, Austria, wants to have a penfriend from India. She's now 16 and able to correspond in English and German.

Dear Editor,

On the 1st of July 1982 a nine month old elephant calf called Mahati was loaned by the Government of Arunachal Pradesh for the Asian Games to be held at New Delhi. The calf was received on the behalf of the games authority by Shri C. V. Shridharan who is the managing partner of the Apollo Circus of Bombay.

The general public was led to believe that the calf was going back to Arunachal Pradesh after the completion of the games. This was not done and the matter was taken up by the Government of Arunachal Pradesh with the Apollo Circus who in turn demand exorbitant charges for the calf's maintenance.

Although the calf was to be returned to the Government of Arunachal Pradesh it is now learnt that it is being used by the circus people for their professional purposes. This is highly objectionable, and the circus authorities must be pressurised by public opinion and asked to return the now almost full grown elephant back to its natural habitat.

Sincerely,

K. D. CHOWDHURY
Divisional Forest Officer
D. Ering Memorial
Wild Life Sanctuary Division
P. O. Pasighat-791 102

Dear Editor,

I was very pleased to read the 64th issue of the WWF-I newsletter and found it most useful and educative especially for little children. My congratulations to the concerted efforts!

Since our organisation is actively involved in creating awareness, it would be an added strength to our library. Could you please enlist our organisation on your regular mailing list to enable us to receive future issues of this newsletter?

I have another query. Are there any pinnipeds in our Indian coasts? I am particularly interested in the sealions, walruses and seals. Could you help me?

I am enclosing a brochure of our organisation for your kind perusal.

Sincerely,

C. P. JAYALAKSHMI
Hony. Information Analyst
Energy and Environment Group
Post Bag No. 4
New Delhi 110 066.

Dear Editor

I want to bring to your kind notice the plight of the Great Indian Bustard in Gujarat State.

Our Society is Registered Under-Youth movement of W.W.F. as 'GONDAL NATURE CLUB' (471W-3) and Forest Department of Gujarat as 'GONDAL FOREST YOUTH CLUB' (Guj.401Rajkot).

The Great Indian Bustard is a very rare Indian bird and we are fortunate that some are still present in Jamnagar and Kutch district in Gujarat State. For the last six years 'The Bombay Natural History Society' (BNHS) is doing research on this bird, and according to their reports the bustard is found in six states in India. Except for Gujarat State, all the other five states have established Sanctuaries for protection of the bustard. In 1985 The BNHS Submitted a proposal to Gujarat Government to declare three areas in Gujarat i. e. Abdasa, and Banni in Kutch, and Bhathiya-Kalyanpur area in Jamnagar as Sanctuaries for this rare bird, but unfortunately nothing has been done till now.

EPS shall be grateful, if you please write to the Honourable Prime Minister, Government of India, New Delhi about development of such sanctuaries where The Great Indian bustard can live freely and increase in number.

Thanking you and soliciting your kind co-operation.

Yours Sincerely,
ASHUTOSH UPADHYAYA
ENVIRONMENT PRESERVATION SOCIETY
'Vidhya Niketan', 4, Station Plot, Gondal, 360 311
Phone: 02825 - 357, 182

Dear Editor,

On June 1, 1984 we were trekking down the lower Droog estate of Nilgiris reaching it through Coonoor and Katari, with an aim to take the checklist of birds, animals and trees and assess its potential for being converted into a wildlife preserve. It was on that day, we came across the cousin of the squirrel—the tree shrew.

Our research camp was about 2500 feet below Droog. We must have trekked about 1000 feet down, the path was getting narrower going down-hill, as we took a turn, some movement attracted us to our right.

With a little long tail the tree shrew (*Anathana Elliotii*) peeped out of a tree hole and inspite

Obituary

It is with great sorrow that we announce the sad and premature demise of Mr. V. R. Parameshwaran Nair, WWF-India Life Subscriber on the 8th of June 1988 in the tragic Island Express accident at Perumon near Quilon, Kerala.

He was a devoted forester and an able administrator. He served the Kerala Forest Department as a Forest Range Officer, after which he took up the post of Regional Manager for the Kerala Forest Development Corporation (KFDC). His last post was that of Assistant Conservator of Forests. He was a keen conservationist. Mr. Parameshwaran was 49, and is survived by his wife and three children (two sons and a daughter). The WWF-I fraternity joins in extending their heartfelt condolences to the bereaved family.

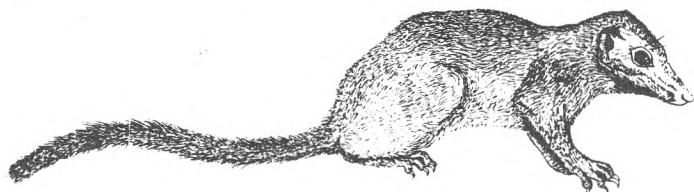
of our presence, it came out and ran into the thick bushes underneath.

Mr. Theodore Baskaran, Addl. Postmaster General has also sighted a Madras tree shrew on April 24, 1984 in Shervorai hills, (this appeared in "Hornbill" (3), '86 of the Bombay Natural History Society. To our knowledge no one has sighted the tree shrew in the Nilgiris and Mr. J. C. Daniel (BNHS) has also mentioned it. We spent a few days in search of the tree shrew in Shervorai hills but could not find any. Even near Kotagiri at St. Catherine Falls our friend Mr. Boopathy has also sighted a tree shrew like animal in June 1987.

Hope this will be of some use for further researchers on the tree shrew.

Yours truly,

S. MOHAMED ALI
Mettupalayam Wildlife Preservation Society
250, Main Road, Mettupalayam - 641 301.



His Excellency Shri R. K. Trivedi
The Governor of Gujarat
Raj Bhavan
Gandhinagar

Respected Sir:

Deforestation in Vandsa

WWF, as you know, is an organisation that promotes conservation of nature and wildlife. Through this letter, we wish to bring to your kind notice, large scale devastation of forest near Vandsa which is still going unabated. We solicit your support in checking the deforestation and also in initiating a replantation programme. The details of the deforestation are given below:

The area known as "Rakh Jungle" is situated at village Ranifalia, just 2 Kms. from Vandsa town in Valsad District. The forest spanning over 180 acres of land, had till recently a large number of trees of different species and equally varied wildlife including tigers and panthers. The forest was under the ownership of "Indranad Charitable Trust" from which it was taken over by the Government of Gujarat in 1975. We regret to inform you that since the last few years, there has been widespread felling of trees in this forest which is still going on unchecked. Recently, a team of WWF members surveyed the forest and collected first hand information. Our findings are most shocking, as the extent of deforestation was unbelievable. In fact it was impossible to believe that on the barren land that we were standing, there once was a dense jungle that too not less than ten years ago. The forest department had conducted a survey of this jungle in 1978-79 and we also surveyed the same recently to gauge the extent of deforestation. The findings are given in the following table:

Variety of trees	Number in 1978-79	Existing to-day
Teak	6,990	1
Ingelli	21,250	161
	28,240	162*

* Note: The above figure of 162 trees includes over 25' of trees already ringed and ready for felling.

The figures speak for themselves. It would not be improper to call such an act of deforestation as ghastly or macabre as it is nothing but a coldblooded murder of mother earth. The dry stumps of the trees felled still stand as mute witnesses to this ghastly devastation. Unless some urgent steps are taken the whole area will be completely denuded in no time. We solicit your support in this activity and also in starting a replantation programme.

We would suggest that this land should be given to organisations like WWF on a long term lease for replantation and protection from illegal felling. We had suggested similar schemes for replantation in Parnera hill and Dharampur area but the same is not approved by the forest department. The copies of our correspondence are enclosed for your kind perusal. We feel that our scheme should be discussed at the highest level in the Government for which we seek your support.

Looking forward to your co-operation,

Very truly yours,
For World Wide Fund For Nature-India.

Sd.
PRASHANT A. DESAI
Joint Secretary.

M/s. R. Y. Gaitonde & Company, based in Madras is a unique benefactor of WWF-India.

Since January this year this leather-goods producing organization has been making a regular monthly donation to the Tamil Nadu State Office of WWF-India. The donation is a stipulated percentage of revenue earned on the sale of leather-goods. These goods are being produced from skins of domesticated animals alone. The sales are generated through the Company's shop 'IGUANA' located on the premises of the prestigious five-star Adyar Park Hotel in Madras.

